

Greenhouse or ICE AGE?

Catherine Simons B.Sc.

Why are government and non-government groups rushing to outdo each other in urging drastic action to cater for global warming, when there is not conclusive evidence to show that "greenhouse" gases will cause global warming?

In the 1960's the popular theory concerning the future climate of the earth was that we were on the brink of an ice age. Surely, some of these effects that led scientists to believe this theory still exist today? The Greenhouse Effect on its own may tend to warm the atmosphere, but what about all the other factors that can effect our climate?

The interesting thing to realise is, there is much uncertainty among climatologists and geophysicists about future climate changes. Scientific American, July 1990 states "Some of the worlds' eminent authorities on the atmosphere recently hurled verbal brickbats at one another in the pages of the prestigious journal "Science". Their charges of "junk science" and "science by consensus" reflect the acrimonious nature of the debate within the science community. Some members of the National Academy of Sciences, including one of its former presidents, charge that policymakers are being induced to take unwise actions on the basis of uncertain scientific evidence."

WHO IS THE SCIENTIST THAT FIRST SUPPORTED GLOBAL WARMING?

Most of the "proof" of global warming comes from a computer model made by James Hansen, which was based on Miosseyev's model. Some of Hansen's own colleagues believe that he lacks a scientific basis, for instance ...

Dr Patrick Michaels, Professor of Environmental Sciences at the University of Virginia and a member of the executive board of the American Association of State Climatologists, had this to say when asked about the reliability of Hansen's data and how he arrived at his conclusions.

"When Jim (Hansen) got in front of Congress, what he did is he compared January through May temperatures to annual averages for the last hundred years. That's essentially like comparing apples and oranges, because there is going to be greater variability in samples of less than a year compared to that of an entire year ..."

LET'S LOOK AT THE 'GREENHOUSE EFFECT'

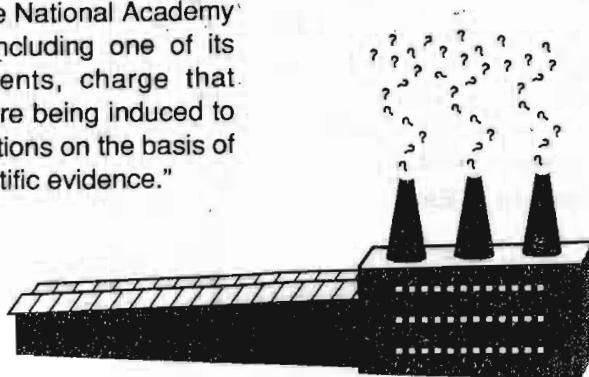
First, what are the actual temperature changes? In January 1989, the US National Oceanic and Atmospheric Administration (NOAA) carried out a survey of weather trends in the US from 1895 to 1987. The only prediction they were prepared to make was towards cooler, drier conditions.

Most reports supporting global warming seem to show an overall rise in annual surface air temperatures of 0.5 C since 1850. During this period the temperatures actually increase, decrease for a while, then increase again. One criticism of these measurements is that they ignore the effects of urban warming, as many of the measurements were taken near cities. Two Arizona State University researchers found when they studied weather data recorded since 1920 in small towns throughout the US, that the average temperature has actually declined by 0.5 C.

In fact any temperature increases are more likely to represent climate recovery following the cooling of the Little Ice Age, which peaked in the early 1800's. We may simply be returning to the warmer conditions that were naturally present during the 13th Century, when there was virtually no global industrialisation.

THE CO₂ LEVELS

Over the past 160 million years evidence taken from deep ice cores has shown natural large fluctuations in CO₂ levels. It also shows that temperatures vary with this. So there



seems to be some natural phenomenon that cause both these to vary simultaneously.

To get things in perspective, man's total CO₂ output from fossil-fuel combustion and deforestation, is approx 5.5 million tonnes of CO₂ per year into the atmosphere. But termites alone contribute 14 billion tonnes of CO₂ into the atmosphere each year as a result of breaking down cellular material.

Data collected at the Mauna Loa observatory shows that CO₂ temperatures have risen since 1958.

OTHER TEMPERATURE FACTORS

The United States Climate Analysis Centre, William Gray and many meteorologists at the University of Colorado, Kevin Trenberth and his associates at the National Centre for Atmospheric Research, support the notion that atmospheric conditions appear to be mainly determined by the shifting pattern of the Pacific "ENSO Effect", or ocean and wind systems better known as "El Nino" and "La Nina".

El Nino is an event that occurs once every four years and seems to have a warming effect around the globe. During La Nina events the main body of the ocean cools. New Scientist 11 February 1989 states "Until recent months, for reasons that nobody can explain, there has been no La Nina events since 1975, though records going back to the 1880's suggest that before, they were as frequent as El Nino events. But a strong La Nina event has been running in the Pacific since early 1988. In mid-1987, water temperatures in the central Pacific were some 1.5 C above normal." "By June 1988 the temperatures were 2 C below normal at roughly 24 C. Most climatologists accept that La Nina is the cause of global cooling that began in the middle of last year."

Referring to the amount of atmospheric CO₂ during the last ice age, Scientific American, Jan 1990 states "Only a major shift in the ocean's operation could account for such a dramatic change in atmospheric composition. After all, the oceans hold 60 times as much carbon dioxide as the atmosphere; because the gas readily diffuses between the ocean surface and the atmosphere, its concentration in surface waters regulates the atmospheric concentrations: Living things control the surface water concentration."

THE PREDICTIONS OF DR IBEN BROWNING

This is a man who has an enviable record in long range weather prediction - 86% accuracy. He is recognized as an expert in many fields including climatology, vulcanism, bio-engineering, computers and space navigation, and has been employed as a consultant for many governments throughout the world. He is predicting that we are going into a cooler, drier period.

His predictions focus on high tidal forces, peaking in 1992, which may trigger high volcanic activity. This would greatly increase the amount of dust and sulphurous oxides in the atmosphere, thus forming dry clouds, which reflect away the sunlight, resulting in a cooling of the earth.

The sun's own temperature rises and falls in cyclic patterns. For example the sun's temperature began falling in 1940 and is expected to continue falling until 2010. It is predicted that this will cause a full 1 degree C drop in the annual surface air temperature of Earth.

CONCLUSION

There is still no conclusive evidence to support the theory that we are in for more global warming

due to the Greenhouse Effect. It seems many of the well respected scientists in the field believe we are in for a cooler, drier period.

More attention would be appropriately focussed on other real environmental issues such as the emission of toxic chemicals from mankind's technologies. Evidence does show some of these are much more directly harmful to life. **N**

by Catherine Simons B.Sc.

REFERENCES

- Broeker W.S. & Denton G.H. (1990) "What Drives Global Cycles?", Scientific American January 1990
- Browning I. & Winkless N. (1970) "Climate and the Affairs of Men", Harpers Magazine Press.
- Bryant Dr. E. (1988) "The Greenhouse Conspiracy", The Optimist Nov/Dec 1988; p28-29.
- Dobson G. (1963) "Exploring The Atmosphere", Oxford Clarendon Press.
- Eddy J.A. (1977) "The Case of the Missing Sunspots", Scientific American, #230; p80-92.
- Fifield R. (1988) "Frozen Assets of the Ice Cores", New Scientist 14 February 1988.
- Foukal P.V. (1990) "The Variable Sun", Scientific American February 1990; p26-33.
- Gribbin J. (1988) "Britain Shivers in the Global Greenhouse", New Scientist, 9 June 1988.
- Gribbin J. (1988) "Inside Science: The Greenhouse Effect", New Scientist, 22 October 1988.
- Kelly P.M. & Sear C.B. (1984) "Climatic Impact of Explosive Volcanic Eruptions", Nature #311, 25 October 1984; p740-742.
- Maduro R. & White C. (1889) "The 'Greenhouse Effect' Hoax: A World Federalist Plot", EIR Special Report.
- Pearce F. (1989) "Blowing Hot and Cold in the Greenhouse", New Scientist, 11 February 1989.
- White R.M. (1990) "The Great Climate Debate", Scientific American July 1990; p18